103D CONGRESS
1ST SESSION

S. 110

To require the Administrator of the Environmental Protection Agency to seek advice concerning environmental risks, and for other purpposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 21 (legislative day, JANUARY 5), 1993

Mr. MOYNIHAN introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

---

A BILL

To require the Administrator of the Environmental Protection Agency to seek advice concerning environmental risks, and for other purpposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Environmental Risk Reduction Act of 1993''.

SEC. 2. FINDINGS AND POLICY.

(a) FINDINGS.—Congress finds that—

(1) the cost of protecting the quality of the environment currently exceeds $115,000,000,000 per year;

(2) providing protection to a continually increasing population from the deleterious effects of global climatic change, stratospheric ozone depletion, the loss of biological diversity, and waste products will result in increases in the cost referred to in paragraph (1);

(3) although the cost referred to in paragraph (1) is not necessarily excessive, the amount is too substantial for the funds to be used ineffectively or inefficiently;

(4) there is a need to coordinate the development and implementation of environmental policies among policymakers of the Federal Government and the governments of States and political subdivisions of States;

(5) a key role of the Federal Government in the development of environmental policy is to support research to upgrade environmental science and engineering;

(6) ecological resources are extraordinarily valuable, and risks to the resources either directly or indirectly degrade human health and the economy;

(7) the most effective use of the funds referred to in paragraph (1) would—

(A) protect the greatest number of individuals from the most harm; and

(B) be supported by a public perception that subparagraph (A) is being carried out;

(8) pollution prevention and toxic use reduction are preferred techniques for environmental protection;

(9) the techniques referred to in paragraph (8)—

(A) should be considered, if feasible, in decisions related to environmental protection; and

(B) have recognized limitations, as some environmental hazards cannot be ameliorated through the use of the techniques;

(10) the ranking of relative risk is another important technique for environmental protection;

(11) the determination of safety is a social construct instead of a scientific one, and is based more on the values of individual control and social equity than on the knowledge of a defined risk;

(12) notwithstanding paragraph (11), scientific information plays an essential role in supporting environmental decisions by policymakers, as members of the general public use scientific information to

understand the likelihood, nature, and magnitude of potential risks;

(13) it is necessary to maintain a clear conceptual distinction between the techniques of risk assessment and risk management;

(14) a risk assessment should—

(A) be the most accurate and informative quantitative evaluation of risk that is practicable to conduct; and

(B) include a statement of important identifiable uncertainties;

(15) risk management is a political process as well as a technical one;

(16) risk management integrates the findings of a risk assessment with other considerations, such as economic considerations, legislative mandates, and the level of public concern;

(17) good risk management requires a reliable and strictly objective risk assessment;

(18) the ranking of relative risks to human health, welfare, and ecological resources is a complex task, and is best performed by technical experts who do not have interests that could bias objective judgment;

(19) applying technology and resources to address the highest ranked risks within the intent of existing environmental laws and identifying highly ranked risks not addressed by law can significantly reduce risks to human health, welfare, and ecological resources;

(20) some populations of special concern appear to have a greater degree of sensitivity to environmental hazards, including pregnant women and fetuses, children, the elderly, chronically ill individuals, and individuals with certain racial and genetic characteristics;

(21) better risk assessment methodologies and a long-term commitment to collecting monitoring data on the condition of ecological resources and exposure of humans and ecosystems to pollutants are necessary to ensure—

(A) the identification of the greatest risks to human health and the environment; and

(B) that environmental laws are applied in such manner as to accomplishing the intended results of the laws;

(22) ranking risks must be an ongoing process and must reflect improvements in environmental data and scientific understanding;

(23) the Administrator needs a major national data base concerning environmental hazards to aid in the adjustment of priorities and programs to direct resources to ensure success in efforts to address the hazards;

(24) the environmental monitoring and assessment program created under this Act provides the functional equivalent of an environmental statistics program;

(25) although the National Academy of Sciences has documented flaws in the administration and management of the environmental monitoring and assessment program of the Agency in an interim report issued June 1992, the flaws can be addressed through improvements in the program, and more time is needed to address the flaws; and

(26) effective and efficient strategies to reduce risks must quantify significant costs and benefits to the greatest extent possible.

(b) POLICY.—It is the policy of the United States that—

(1) the environmental protection activities administered by the Administrator shall attain the greatest risk reduction possible with the resources available to the Administrator; and

(2) the ability to reduce risks requires—

(A) accurate, quantitative estimates of the exposure of humans and ecosystems to all important risk factors;

(B) accurate techniques for predicting the effects of the exposure referred to in subparagraph (A);

(C) an adequate understanding of technical, economic, social, and legal alternatives to achieve a reduction in exposure to risk factors; and

(D) accurate estimates of the costs and benefits of alternatives for reducing risks.

SEC. 3. DEFINITIONS.

As used in this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) AGENCY.—The term ''Agency'' means the Environmental Protection Agency.

(3) ECOLOGICAL RESOURCE.—The term ''ecological resource'' means a nonhuman living thing or habitat (and the interaction between a nonhuman living things and habitat) including a lake, stream, forest, wetland, desert, tundra, ocean, estuary,

beach, grassland, agricultural area, or a vegetated urban or suburban area.

(4) EFFECT.—The term ''effect'' means a deleterious change in the condition—

(A) of a human or other living thing, (including death, cancer or other chronic illness, decreased reproductive capacity, or disfigurement); or

(B) of an inanimate thing important to human welfare (including destruction, degeneration, the loss of intended function, and increased costs for maintenance).

(5) ENVIRONMENTAL LAW.—The term ''environmental law'' means any environmental law administered by the Administrator that provides for the protection of the environment, including—

(A) title XIV of the Public Health Service Act (commonly known as the Safe Drinking Water Act, 42 U.S.C. 300f et seq.);

(B) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

(C) the Clean Air Act (42 U.S.C. 7401 et seq.);

(D) the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.);

(E) the Toxic Substances Control Act (15 U.S.C. 2601 et seq.);

(F) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.);

(G) the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.);

(H) the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99–499);

(I) the Marine Protection, Research, and Sanctuaries Act of 1972 (16 U.S.C. 1431 et seq.); and

(J) any law administered by the Administrator concerning protection from sources of radiation.

(6) EXPOSURE.—The term ''exposure'' means the juxtaposition in time and space of a stressor with a human or other living thing or an inanimate thing important to human welfare, in such manner that an effect could result.

(7) IRREVERSIBILITY.—The term ''irreversibility'' means the extent to which a return to conditions prior to the occurrence of an effect are

either very slow or will never occur (as determined by the Administrator).

(8) LIKELIHOOD.—The term ''likelihood'' means the estimated probability that an effect will occur.

(9) MAGNITUDE.—The term ''magnitude'' means the number of individuals or the quantity of ecological resources or other resources that contribute to human welfare that are affected by exposure to a stressor.

(10) RESPONSE.—The term ''response'' has the same meaning as the term ''effect'' under paragraph (4).

(11) RISK.—The term ''risk'' means the probability of the occurrence of an event.

(12) RISK ASSESSMENT.—The term ''risk assessment'' means a process that uses a factual base to—

(A) identify, characterize, and to the extent practicable quantify the potential adverse effects of exposure of individuals, populations, habitats, ecosystems, or materials to hazardous pollutants, environmental activities, or other situations; and

(B) to the extent practicable, identify and characterize identifiable important uncertainties.

(13) RISK MANAGEMENT.—The term ''risk management'' means, with respect to environmental decisionmaking, the process of weighing policy alternatives and seeking the most appropriate regulatory action that integrates the results of a risk assessment with social, economic, political, and other appropriate concerns to arrive at a decision.

(14) SERIOUSNESS.—The term ''seriousness'' means the intensity of effect, independent of the magnitude.

(15) STRESSOR.—The term ''stressor'' means a physical, chemical, or biological factor resulting from human activity that is capable of causing an effect on human health, welfare, or ecological resources.

(16) SUSTAINABILITY.—With respect to ecological resources, the term ''sustainability'' means the ability to maintain diverse, self-reproducing biological communities that are capable of meeting the current needs of humans without compromising the ability of future generations to meet needs, including—

(A) needs for natural resources such as food, fiber, lumber, fish, and game;

(B) environmental services such as flood mitigation, water storage, and the regulation of the chemistry of the atmosphere, oceans, and inland waters;

(C) opportunities for recreation and scientific study; and

(D) the need for appreciation of the beauty and diversity of nature.

(17) UNCERTAINTY.—The term ''uncertainty'' means the quantifiable and unquantifiable potential error in the estimation of risk that is caused by the quality of data, or the assumptions used in risk estimation.

SEC. 4. EXPERT ADVISORY COMMITTEES.

(a) REDUCTION.—

(1) IN GENERAL.—Through the careful assessment and ranking of relative risks and the options for the management of the risks, the Administrator shall use the resources available to the Administrator pursuant to environmental laws to reduce those risks to human health and welfare, and risks to ecological resources, that the Administrator deter-

mines to be the most likely, most serious, most irreversible, and of the greatest magnitude.

(2) OPERATION OF LAW.—In carrying out paragraph (1) the Administrator shall—

(A) conduct a reduction of risk in a manner consistent with the requirements of the environmental laws and any other law; and

(B) consider social, economic, and such other related concerns as the Administrator determines to be appropriate.

(3) ADVISORY COMMITTEES.—In order to ensure that the reduction of risks referred to in paragraph (1) is based on the best available scientific understanding, the Administrator shall seek the advice of the expert advisory committees established under subsections (b) and (c).

(b) COMMITTEE ON RELATIVE RISKS.—

(1) IN GENERAL.—The Administrator shall establish a Committee on Relative Risks (hereafter in this subsection referred to as the ''Committee''). The Committee shall be independent from the Science Advisory Board.

(2) PURPOSE.—The Committee shall provide expert advice concerning ranking the relative risks of

stressors to human health, welfare, and ecological resources.

(3) MEMBERS.—

(A) IN GENERAL.—The Administrator shall appoint 15 members to the Committee. In making appointments to the Committee, the Administrator may request nominations from the heads of the National Academy of Sciences, the National Academy of Engineering, the Science Adviser of the President, and such other individuals as the Administrator determines to be appropriate.

(B) REPRESENTATION.—The Administrator shall appoint a representative group of individuals on the basis of the recognized expertise and ability of the individuals in the areas of human health effects, ecological effects, welfare effects, engineering, economics, risk communications, and such other specialties related to risk management and risk assessment (that do not incorporate a purely statistical approach) as the Administrator considers appropriate.

(C) CONSIDERATIONS OF THE ADMINISTRATOR.—In making the appointments, the Ad-

ministrator shall appoint members so as to represent a balanced spectrum of expertise and ability. The Administrator shall take such action as is necessary to ensure that—

(i) the appointments are made only on the basis of the criteria referred to in the previous sentence, and not on other criteria, such as political affiliation; and

(ii) each member appointed to the Committee has no real or apparent conflict of interest with respect to serving on the Committee.

(D) LIST.—The Administrator shall publish a list of the individuals who supply nominations pursuant to this paragraph.

(4) TERMS.—

(A) INITIAL TERMS.—Members initially appointed to the Committee shall serve for the following terms:

(i) Five members shall serve for an initial term of 2 years.

(ii) Five members shall serve for an initial term of 4 years.

(iii) Five members shall serve for an initial term of 6 years.

(B) SUBSEQUENT TERMS.—Upon completion of a term referred to under subparagraph (A), each member of the Committee subsequently appointed or reappointed shall serve for a term of 6 years. A vacancy on the Committee shall be filled in the same manner as the appointment was made.

(5) CHAIRPERSON.—Members of the Committee shall elect a Chairperson from among the members. The Chairperson shall serve for a term of 2 years.

(6) CRITERIA AND GUIDELINES.—The Committee shall establish appropriate criteria and guidelines to carry out the duties of the Committee under paragraph (7).

(7) DUTIES.—The Committee shall—

(A) identify and rank the greatest environmental risks to human health, welfare, and ecological resources, and incorporate the overall likelihood, seriousness, magnitude, and irreversibility of each of the risks;

(B) identify a common list of the greatest risks to human health, welfare, and ecological resources; and

(C) assess the state of pertinent scientific understanding and other factors contributing to uncertainty in the ranking of relative risk.

(8) IDENTIFICATION.—The Committee shall identify risks in such manner as to also identify—

(A) the need for new laws; and

(B) priorities under existing laws.

(9) PUBLIC MEETINGS.—The Committee shall hold open public meetings to solicit input from the general public and such other sources as the Committee determines to be appropriate.

(10) REPORTS.—

(A) REPORTS TO THE ADMINISTRATOR.—In accordance with this subsection, the Chairperson of the Committee shall report to the Administrator the findings of the Committee.

(B) FREQUENCY OF REPORTS.—The Chairperson of the Committee shall report the findings of the Committee to the Administrator on or before August 1, 1995, and not less frequently than every 2 years thereafter. Upon receipt of the report, the Administrator shall forward a copy of the report to the Science Advisory Board.

(11) REVIEW BY SCIENCE ADVISORY BOARD.—

(A) IN GENERAL.—The Science Advisory Board shall review each report submitted to the Administrator and to Congress pursuant to paragraph (10) by not later than 6 months after the date of issuance of the report, and report the findings of each review to the Committee and to the Administrator.

(B) REVIEW BY COMMITTEE.—The Committee shall review the findings of the Science Advisory Board, and shall by not later than 6 months after the date of receipt of the findings, revise the content of the report to take into consideration the findings of the Science Advisory Board, and submit the revised report to the Administrator.

(C) REVISED REPORT.—The Administrator shall make available copies of the revised report to the individuals and entities referred to in subsection (e).

(c) COMMITTEE ON ENVIRONMENTAL BENEFITS.—

(1) IN GENERAL.—The Administrator shall establish a Committee on Environmental Benefits (hereafter in this subsection referred to as the ''Committee'') to provide expert advice on estimating quantitative benefits of reducing risks. The Commit-

tee shall be independent from the Science Advisory Board.

(2) MEMBERS.—

(A) IN GENERAL.—The Administrator shall appoint 15 members to the Committee. In making appointments to the Committee, the Administrator may request nominations from the Association of Environmental and Resource Economists and such other groups and individuals as the Administrator determines to be appropriate.

(B) REPRESENTATION.—The Administrator shall appoint a representative group of individuals on the basis of the recognized expertise and ability in areas including economics, engineering, public administration, health care, risk communication, and such other specialties related to risk management and risk assessment (that do not incorporate a purely statistical approach) as the Administrator considers to be appropriate.

(C) CONSIDERATIONS OF THE ADMINISTRATOR.—In making the appointments, the Administrator shall appoint members in such fashion as to represent a balanced spectrum of ex-

pertise and ability. The Administrator shall take such action as is necessary to ensure that—

(i) the appointments are made only on the basis of the criteria referred to in the previous sentence, and not on other criteria, such as political affiliation; and

(ii) each member appointed to the Committee has no real or apparent conflict of interest with respect to serving on the Committee; and

(D) LIST.—The Administrator shall publish a list of the individuals who supply nominations pursuant to this paragraph.

(3) TERMS.—

(A) INITIAL TERMS.—Members initially appointed to the Committee shall serve for the following terms:

(i) Five members shall serve for an initial term of 2 years.

(ii) Five members shall serve for an initial term of 4 years.

(iii) Five members shall serve for an initial term of 6 years.

(B) SUBSEQUENT TERMS.—Upon completion of a term referred to under subparagraph (A), each member of the Committee subsequently appointed or reappointed shall serve for a term of 6 years. A vacancy on the Committee shall be filled in the same manner as the appointment was made.

(4) CHAIRPERSON.— Members of the Committee shall elect a chairperson from among the members. The Chairperson shall serve for a term of 2 years.

(5) CRITERIA AND GUIDELINES.—The Committee shall establish appropriate criteria and guidelines to carry out the duties of the Committee under paragraph (6).

(6) DUTIES OF THE COMMITTEE.—The Committee shall estimate, to the extent practicable, the monetary value, and such other values as the Committee determines to be appropriate, of—

(A) avoiding premature mortality;

(B) avoiding cancer, diseases, birth defects, and other health effects that reduce the quality of life;

(C) preserving biological diversity and the sustainability of ecological resources;

(D) an aesthetic environment;

(E) services performed by ecosystems (such as flood mitigation, provision of food or materials, or regulating the chemistry of the air or water) that, if lost or degraded, would have to be replaced by technology; and

(F) avoiding other risks identified by the Committee.

(7) PUBLIC MEETINGS.—The Committee shall hold open public meetings to solicit input from the general public and such other sources as the Committee determines to be appropriate.

(8) REPORTS.—

(A) REPORTS TO THE ADMINISTRATOR.—In accordance with this subsection, the Chairperson of the Committee shall report to the Administrator the findings of the Committee.

(B) FREQUENCY OF REPORTS.—The Chairperson of the Committee shall report the findings of the Committee to the Administrator on or before August 1, 1995, and not less frequently than every 2 years thereafter. Upon receipt of the report, the Administrator shall forward a copy of the report to the Science Advisory Board.

(9) REVIEW BY SCIENCE ADVISORY BOARD.—

(A) IN GENERAL.—The Science Advisory Board shall review each report submitted to the Administrator and to Congress pursuant to paragraph (8) by not later than 6 months after the date of issuance of the report, and report the findings of each review to the Committee and to the Administrator.

(B) REVIEW BY COMMITTEE.—The Committee shall review the findings of the Science Advisory Board, and shall by not later than 6 months after the date of receipt of the findings, revise the content of the report to take into consideration the findings of the Science Advisory Board, and submit the revised report to the Administrator.

(C) REVISED REPORT.—The Administrator shall make available copies of the revised report to the individuals and entities referred to in subsection (e).

(d) COMPENSATION.—

(1) IN GENERAL.—Each member of a committee established under this section who is not an officer or employee of the Federal Government shall be compensated at a rate not to exceed the daily equiv-

alent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the committee. Each member of a committee established under this section who is an officer or employee of the United States shall serve without compensation in addition to that received for service as an officer or employee of the United States.

(2) TRAVEL.—The members of the committees established under this section shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the Commission.

(e) FINDINGS.—To ensure extensive opportunities for public participation and access, the Administrator shall communicate the findings in the reports of the committees and the Science Advisory Board reviews submitted to the Administrator pursuant to this section to—

(1) Congress;

(2) such other Federal agencies as the Administrator determines to be appropriate;

(3) the governments of such States and political subdivisions of States as the Administrator determines to be appropriate; and

(4) the general public.

(f) DISCLOSURE.—Each member of a committee established under this section shall, as a condition to serving on the committee, agree to fully disclose financial interests. The Administrator shall ensure that appropriate measures are carried out to avoid any conflict of interest with respect to a member.

(g) STUDIES.—The Administrator may enter into a contract, execute an agreement, or issue a grant for carrying out studies to generate information to assist a committee established under this section in efforts to rank relative risks and estimate environmental benefits.

(h) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated to the Agency $3,000,000 for each of fiscal years 1994 through 2000.

SEC. 5. RISK ASSESSMENT GUIDELINES.

(a) IN GENERAL.—

(1) RISK ASSESSMENTS.—To the extent practicable, the Administrator shall protect human

health and the environment by using careful risk assessments and the evaluation of options for reducing risks.

(2) PROHIBITION.—The Administrator may not interpret or apply any provision of this Act in such manner as to delay a pending regulatory decision based on the outcome of research or analysis of the Administrator.

(b) RISK ASSESSMENT GUIDELINES.—The Administrator shall develop, and revise as appropriate, guidelines to ensure consistency and technical quality in risk assessments by specifying such minimum standards for different risk assessment approaches, as are appropriate for the scale of the problem, the level of scientific understanding, and the available data.

(c) INITIAL GUIDELINES.—The initial set of guidelines referred to in subsection (b) shall include risk assessments involving—

(1) human mutagenicity;

(2) human carcinogenicity;

(3) human developmental toxicants;

(4) human reproductive effects;

(5) human systemic toxicants;

(6) ecological effects of sources of pollutants from single sites;

(7) ecological effects of pollutants that originate from many sites;

(8) ecological effects from physical alteration of the environment;

(9) ecological effects of introducing nonnative or genetically engineered organisms;

(10) pollutants affecting manmade materials; and

(11) pollutants affecting the productivity of soils.

(d) ADDITIONAL GUIDELINES.—The Administrator shall develop such additional risk assessment guidelines as the Administrator determines to be warranted—

(1) by the state of pertinent scientific understanding; and

(2) by the need for sound decisions to protect human health, welfare, and the environment.

(e) MINIMUM REQUIREMENTS.—The risk assessment guidelines developed under this section shall include the following components:

(1) A hazard identification that demonstrates whether exposure to a stressor is causally linked to an effect.

(2) An assessment that measures or estimates the exposure of well-defined individuals, habitats, populations, ecosystems, or materials to a stressor.

(3) An assessment that determines or estimates the magnitude of response of affected individuals, habitats, populations, ecosystems, or materials associated with different levels of exposure to a stressor under representative or reasonably foreseeable environmental conditions.

(4) A risk characterization that provides an overall description of the nature and magnitude of probable effects resulting from alternative risk management options (including no action), together with a quantitative estimate of the accompanying uncertainties.

(f) PUBLICATION IN THE FEDERAL REGISTER AND REPORTS TO CONGRESS.—The Administrator shall—

(1) publish all initial risk assessment guidelines referred to in subsection (c) in the Federal Register not later than 5 years after the date of the enactment of this Act, and report annually to Congress on progress toward this goal;

(2) ensure that the guidelines are reviewed by the Science Advisory Board; and

(3) after taking into account the findings of the review of the Science Advisory Board and public comments, modify the guidelines and publish such revised guidelines in the Federal Register as are required to meet under subsection (d).

SEC. 6. RISK ASSESSMENT RESEARCH.

(a) IN GENERAL.—In order to provide the most cost-effective use of environmental resources and to ensure that the risk assessment process of the Agency is based on statistically sound and adequate environmental data and scientific understanding, the Administrator shall conduct a long-term core research program concerning environmental risk assessment research.

(b) ENVIRONMENTAL MONITORING AND ASSESSMENT PROGRAM.—As part of the program referred to in subsection (a), the Administrator shall conduct a research program to—

(1) design and evaluate methods and networks to collect monitoring data on the current and changing condition of the environment (including human health, ecological resources, materials, and exposure to environmental stressors) that are relevant to making decisions at the Federal level about alternative risk assessment and risk reduction options;

(2) in cooperation with the heads of other Federal agencies with relevant programs, implement the monitoring programs referred to in paragraph (1);

(3) manage data from the monitoring programs in forms and formats that are technically accurate, objective, and readily accessible to the scientific community and the general public (including providing attention to unavoidable uncertainties with respect to the data and the interpretation of the data); and

(4) provide annual statistical reports and periodic interpretive reports of the results of the monitoring programs to Congress and the general public.

(c) ENVIRONMENTAL RISK ASSESSMENT RESEARCH PROGRAM.—As part of the program referred to in subsection (a), the Administrator shall conduct a long-term core program to establish a firm scientific basis for initial and subsequent risk assessment guidelines, including methods for—

(1) assessing the exposure of humans, ecological resources, and materials to stressors and combinations of stressors, including methods for determining the relation between an environmental exposure and the probability of and scope of the effect;

(2) accurately predicting the effects of exposure to stressors on human health, ecological resources, and materials;

(3) quantifying statistical uncertainty in exposure and stress-response estimates;

(4) quantifying the social and economic values of effects on human health, welfare, and ecological resources;

(5) evaluating and developing measurements to aid in understanding and defining public awareness of the likelihood, seriousness, magnitude, and irreversibility of each risk examined in a risk assessment; and

(6) developing methods for the effective communication of the degree of risk.

(d) LONG-TERM RESEARCH PLANNING.—At least one-half of the research activities conducted under this Act shall be under contracts or assistance agreements with universities and other nonprofit or not-for-profit organizations (as defined by the Administrator). The assistance and contracts shall be—

(1) awarded under full and open competition; and

(2) for a period of at least 3 years, under which full funding shall be obligated at the beginning of the contract or agreement.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Agency to carry out this section $80,000,000 for fiscal year 1994, $130,000,000 for fiscal year 1995, and $200,000,000 for each of fiscal years 1996 through 2000.

SEC. 7. INVOLVEMENT OF THE SCIENTIFIC AND TECHNICAL COMMUNITY.

(a) IN GENERAL.—In developing the risk assessment guidelines under section 5 and in developing and implementing the core research program concerning environmental risk assessment research under section 6, the Administrator shall, to the maximum extent practicable, use the resources and personnel of the Agency.

(b) INTENT OF CONGRESS.—It is the intent of Congress that the Administrator, in addition to using the resources and personnel of the Agency pursuant to subsection (a), should aggressively solicit the advice of the Science Advisory Board and such other specialists in scientific fields as the Administrator determines to be appropriate to develop, evaluate, and interpret technical and scientific information.

SEC. 8. INTERAGENCY PANEL ON RISK ASSESSMENT AND REDUCTION.

(a) ESTABLISHMENT.—There is established an Interagency Panel on Risk Assessment and Reduction (hereafter in this section referred to as the ''Interagency Panel'') for the purpose of coordinating Federal research, data gathering, and implementation of environmental risk assessment and risk reduction activities.

(b) MEMBERSHIP.—The Interagency Panel shall consist of one representative from each of the following Federal agencies, nominated by the head of the agency (or with respect to an individual described in paragraph (9), nominated by the President Chairperson of the Committee, as appropriate) and appointed by the President:

(1) The Environmental Protection Agency.

(2) The Department of the Interior.

(3) The Department of Health and Human Services.

(4) The Department of Energy.

(5) The Department of Commerce.

(6) The Department of Agriculture.

(7) The Corps of Engineers.

(8) The Council on Environmental Quality.

(9) Any other Federal department or agency that the President, or the Chairperson of the Interagency Panel, considers appropriate.

(c) CHAIRPERSON.—The member of the Interagency Panel representing the Environmental Protection Agency shall serve as the Chairperson of the Interagency Panel.

(d) COORDINATION.—The Interagency Panel shall ensure that individual risk assessments and generic risk assessment practices carried out by agencies of the Federal Government are coordinated and made consistent to the greatest extent practicable.

(e) IDENTIFICATION OF INCONSISTENCIES.—The Interagency Panel shall—

(1) identify any inconsistencies between the risk assessments and practices carried out by Federal agencies, and document the reasons for the inconsistencies; and

(2) make recommendations concerning whether changes should be made in the practices of the Federal agencies to minimize the inconsistencies, or whether the inconsistencies should be encouraged.

(f) REPORTS.—Not later than August 31, 1996, and every 2 years thereafter, the Chairperson of the Interagency Panel shall submit a report to the appropriate committees of Congress that summarizes the findings and recommendations of the Interagency Panel under this section.

SEC. 9. REPORTS TO CONGRESS.

(a) ASSESSMENT OF ENVIRONMENTAL RISK REDUCTION OPTIONS.—Not later than 24 months after the date of enactment of this Act, the Administrator shall prepare and submit a report to Congress that includes—

(1) a prioritized list of the human health, welfare, and ecological resource risks considered by the Committee on Relative Risks established under section 4(b);

(2) an identification of public awareness of the likelihood, seriousness, magnitude, and irreversibility of each risk referred to in paragraph (1);

(3) alternative options for reducing the risks referred to in paragraph (1) and corresponding estimated costs and benefits to society, including costs to Federal agencies and the private sector, and any adverse effects that cannot (as of the date of the report) be quantified in monetary terms;

(4) the period of time required for reducing the risks through each option referred to in paragraph (3);

(5) an evaluation of the uncertainty associated with relevant aspects of the assessment process;

(6) an identification of research or data collection that would significantly reduce the uncertainty

in any assessment in the 2-year period following the date of submission of the report to Congress; and

(7) such other recommendations as the Administrator determines to be appropriate.

(b) INTENT OF CONGRESS.—It is the intent of Congress that the information contained in the annual report under this section be used to assist in directing the activities of the Agency so as to result in reducing the most serious and probable risks to the greatest number of individuals and reducing the most serious and probable risks to the sustainability of ecological resources.

(c) DUTIES OF THE ADMINISTRATOR.—The Administrator shall consider social and economic concerns and such other concerns as the Administrator considers to be appropriate to carry out this Act in a reasonable and prudent manner to ensure the protection of public health and the environment. In carrying out this Act, the Administrator shall comply with applicable legal requirements and ensure that the activities of the Administrator are open to public inspection. Nothing in this Act is intended to delay the activities of the Administrator in carrying out responsibilities under other environmental laws.

(d) ONGOING ASSESSMENT.—The Administrator shall revise and update the report submitted under this section to reflect new data or scientific understanding not

later than 2 years after submitting the initial report, and at least every 2 years thereafter.

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

Except as provided in sections 4 and 6, nothing in this Act shall constitute a new authorization for the appropriation of funds.

○

S 110 IS——2

S 110 IS——3